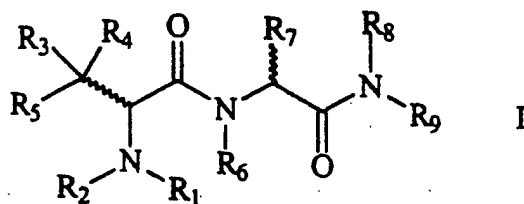


**IN THE CLAIMS:**

1-21. (Canceled).

22. (Currently Amended) A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of H, R, and ArR-,  
provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>1</sub> and R<sub>2</sub> are joined to form a  
ring;

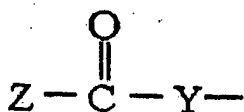
R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of H, R, and ArR-,  
or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

R<sub>5</sub> is selected from the group consisting of H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and



R<sub>9</sub> is:

R is a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, Br, [-C1]-Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon atom saturated or unsaturated alkyl group;

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

X is a moiety selected from the group consisting of -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Ar is an aromatic ring selected from the group consisting of phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

Y is a linear, unsaturated, two to six carbon atom alkyl group, optionally substituted with R, ArR-, or X, provided however if R<sub>8</sub> is H, then the optional substituents on Y are

limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl~~naphthyl~~, anthracyl, or phenanthryl; and,

Z is a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NHCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of H; R; and -C(NH) (NH<sub>2</sub>) or pharmaceutically acceptable salt thereof.

23. (Previously Presented) The compound of claim 22, wherein Ar is phenyl, naphthyl, anthracyl, or pyrrolyl.

24. (Previously Presented) The compound of claim 22, where R<sub>5</sub> is naphthyl, anthracyl, or pyrrolyl.

25. (Previously Presented) The compound of claim 22, wherein R<sub>5</sub> is phenyl.

26. (Previously Presented) The compound of claim 22, wherein R<sub>5</sub> is H.

27. (Previously Presented) The compound of claim 22, wherein R<sub>5</sub> is R.

28. (Previously Presented) The compound of claim 27, wherein R<sub>5</sub> is methyl.

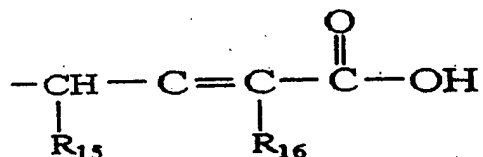
29. (Previously Presented) The compound of claim 22, wherein one of  $R_3$  and  $R_4$  is H and the other of  $R_3$  and  $R_4$  is  $ArR-$ .
30. (Previously Presented) The compound of claim 22, wherein  $R_3$  and  $R_4$  are each R.
31. (Previously Presented) The compound of claim 30, wherein  $R_3$  and  $R_4$  are independently selected from the group consisting of: methyl, ethyl, n-propyl and n-butyl.
32. (Previously Presented) The compound of claim 31, wherein  $R_3$  and  $R_4$  are each - $CH_3$ .
33. (Previously Presented) The compound of claim 32, wherein  $R_5$  is Ar.
34. (Previously Presented) The compound of claim 22, wherein  $R_3$  and  $R_4$  are joined and form a moiety selected from the group consisting of  $\beta$ -cyclopropyl,  $\beta$ -cyclobutyl,  $\beta$ -cyclopentyl and  $\beta$ -cyclohexyl.
35. (Previously Presented) The compound of claim 22, wherein  $R_1$  and  $R_2$  are independently selected from the group consisting of H, methyl, ethyl, propyl, n-butyl and acetyl.

36. (Previously Presented) The compound of claim 22, wherein  $R_1$  and  $R_2$  are joined and form a moiety selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl and cyclohexyl.
37. (Previously Presented) The compound of claim 22, wherein  $R_1$  and  $R_2$  are independently H,  $CH_3$  or acetyl.
38. (Previously Presented) The compound of claim 22, wherein  $R_1$  and  $R_2$  are independently H or  $CH_3$ .
39. (Previously Presented) The compound of claim 38, wherein  $R_1$  is H, and  $R_2$  is  $-CH_3$ .
40. (Previously Presented) The compound of claim 38, wherein  $R_5$  is Ar.
41. (Previously Presented) The compound of claim 38, wherein  $R_3$  and  $R_4$  are each  $-CH_3$ .
42. (Previously Presented) The compound of claim 41, wherein  $R_5$  is Ar.
43. (Previously Presented) The compound of claim 42, wherein  $R_5$  is phenyl.

44. (Previously Presented) The compound of claim 22, wherein  $R_6$  is H or  $CH_3$ .
45. (Previously Presented) The compound of claim 42, wherein  $R_6$  is H or  $CH_3$ .
46. (Previously Presented) The compound of claim 45, wherein  $R_6$  is H.
47. (Previously Presented) The compound of claim 22, wherein  $R_8$  is H or  $CH_3$ .
48. (Previously Presented) The compound of claim 42, wherein  $R_8$  is H or  $CH_3$ .
49. (Previously Presented) The compound of claim 45, wherein  $R_8$  is H or  $CH_3$ .
50. (Previously Presented) The compound of claim 49, wherein  $R_8$  is  $CH_3$ .
51. (Previously Presented) The compound of claim 22, wherein  $R_6$  is H and  $R_8$  is  $CH_3$ .
52. (Previously Presented) The compound of claim 42, wherein  $R_6$  is H and  $R_8$  is  $CH_3$ .
53. (Previously Presented) The compound of claim 22, wherein  $R_7$  is a three to six carbon atom, branched alkyl group.

54. (Previously Presented) The compound of claim 42, wherein  $R_7$  is a three to six carbon atom, branched alkyl group.
55. (Previously Presented) The compound of claim 45, wherein  $R_7$  is a three to six carbon atom, branched alkyl group.
56. (Previously Presented) The compound of claim 49, wherein  $R_7$  is a three to six carbon atom, branched alkyl group.
57. (Previously Presented) The compound of claim 53, wherein  $R_7$  is  $-C(CH_3)_3$ .
58. (Previously Presented) The compound of claim 22, wherein  $R_6$  is H,  $R_7$  is  $-C(CH_3)_3$ , and  $R_8$  is  $-CH_3$ .
59. (Previously Presented) The compound of claim 22, wherein Z is  $-NHCH(R_{11})COOH$  or  $-NCH_3CH(R_{11})COOH$ , wherein  $R_{11}$  is R; or,  $-(CH_2)_nNHC(NH)(NH_2)$ .
60. (Previously Presented) The compound of claim 22, wherein Z is  $-OR_{14}$  in which  $R_{14}$  is a linear or branched one to six carbon alkyl group.

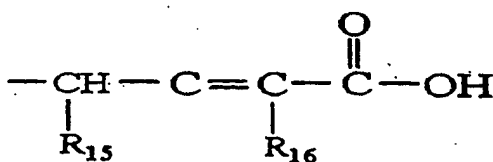
61. (Previously Presented) The compound of claim 22, wherein Z is OH.
62. (Previously Presented) The compound of claim 22, wherein Z is -OCH<sub>3</sub>.
63. (Previously Presented) The compound of claim 22, wherein R<sub>9</sub> has the formula:



wherein R<sub>15</sub> is selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, tert-butyl, iso-butyl, and sec-butyl; and R<sub>16</sub> is selected from the group consisting of H, methyl, ethyl, propyl, iso-propyl, n-butyl, iso-butyl and sec-butyl.

64. (Previously Presented) The compound of claim 63, wherein R<sub>16</sub> is methyl.
65. (Previously Presented) The compound of claim 63, wherein R<sub>15</sub> is isopropyl and R<sub>16</sub> is methyl.
66. (Previously Presented) The compound of claim 55, wherein R<sub>9</sub> has the formula:

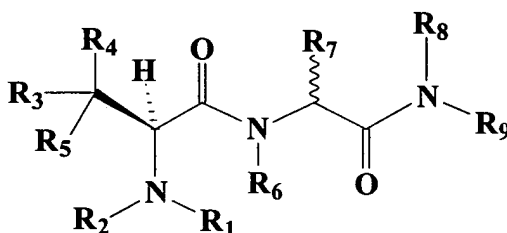




wherein R<sub>15</sub> is selected from the group consisting of: methyl, ethyl, n-propyl, isopropyl, tert-butyl, iso-butyl, and sec-butyl; and R<sub>16</sub> is selected from the group consisting of H, methyl, ethyl, propyl, iso-propyl, n-butyl, iso-butyl and sec-butyl.

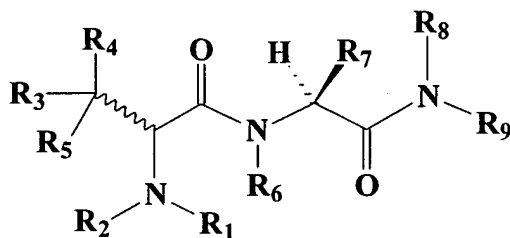
67. (Previously Presented) The compound of claim 66, wherein Z is OH or -OR<sub>14</sub> in which R<sub>14</sub> is a linear or branched one to six carbon alkyl group.

68. (Previously Presented) The compound of claim 22, having the configuration:

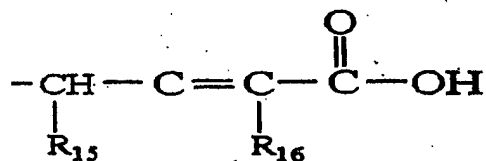


69. (Previously Presented) The compound of claim 22, wherein Y comprises a chiral centre having an s-configuration.

70. (Previously Presented) The compound of claim 22, having the configuration:



71. (Previously Presented) The compound of claim 70, wherein R<sub>5</sub> is Ar; R<sub>3</sub> and R<sub>4</sub> are each CH<sub>3</sub>; R<sub>1</sub>, R<sub>2</sub>, R<sub>6</sub> and R<sub>8</sub> are independently H or CH<sub>3</sub>; R<sub>7</sub> is a three to six carbon branched alkyl group; and, R<sub>9</sub> has the formula



wherein R<sub>15</sub> is selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, tert-butyl, iso-butyl, and sec-butyl; and R<sub>16</sub> is selected from the group consisting of H, methyl, ethyl, propyl, iso-propyl, n-butyl, iso-butyl and sec-butyl.

72. (Previously Presented) The compound of claim 22, wherein the compound has the structure:

73. (Currently Amended) A pharmaceutical composition suitable for treating tumors comprising an anti-tumor effective amount of at least one compound of claim 22 and an acceptable pharmaceutical excipient.

74. (Withdrawn) A method of treating tumors by arresting cell mitosis in a patient in need of such treatment comprising administering to said patient an anti-mitotic effective amount of at least one compound of claim 22.